

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) An apparatus, comprising:
multiple antennas for connecting to receiver chains and at least one transmitter chain; and
a switch adapted to couple each ~~of at least two receiver chains~~ chain to ~~one of at least two of~~
a selected antenna during reception and the transmitter chain to a selected antenna during
transmission ~~plurality of antennas, said switch being further adapted to couple said receiver chains to~~
~~said plurality of antennas such so~~ that each receiver chain is coupled to a different one of said
~~plurality of antennas, said switch comprising:~~
at least two a first sub-switches, each sub-switch adapted to couple be
coupled a first selected antenna to a first different one of said at least two receiver
chain chains creating a first signal path,
a second sub-switch adapted to couple a second selected antenna to a second
receiver chain creating a second signal path, and
a third sub-switch adapted to couple a selected antenna to the transmitter
chain creating a third signal path.
2. (Currently Amended) The apparatus according to Claim 1, wherein the ~~one of said~~
~~plurality of antennas~~ to be coupled by said switch to each of said receiver chains is to be selected
according to a predetermined criterion.
3. (Original) The apparatus according to Claim 1, wherein outputs of said receiver
chains are to be combined to form a combined output.
4. (Currently Amended) The apparatus according to Claim 1, wherein ~~[[each]]~~ first and
second sub-switch each is adapted to be coupled to at least two ~~of said plurality of antennas~~ and the

third sub-switch is adapted to be coupled to all antennas.

5. (Currently Amended) The apparatus according to Claim 4, wherein ~~at least one~~ the first and second sub-switch each is adapted to be coupled to all ~~of said plurality of~~ antennas.

6. (Currently Amended) The apparatus according to Claim 4, wherein ~~at least one~~ the first and second sub-switch each is adapted to be coupled to all except one of ~~said plurality of~~ the antennas.

7. (Currently Amended) The apparatus according to Claim ~~[[4]]~~ 8, wherein the first sub-switch is adapted to be coupled to all antennas and the second each sub-switch is adapted to be coupled to two ~~of said plurality of~~ antennas.

8. (Currently Amended) The apparatus according to Claim 1, wherein the third sub-switch is further comprising: a second switch adapted to be coupled to a power amplifier transmitter chain, and to a receiver chain and to one of said first sub-switches sub-switch such that the first said one of said sub-switches sub-switch is coupled to said receiver chain and said power amplifier transmitter chain through said third sub-switch-second switch-, and wherein the first, second and third signal path each includes fewer than or equal to two of first, second or third sub-switches.

9. (Currently Amended) The apparatus according to Claim 8, wherein the first sub-switch said one of said sub-switches is adapted to be coupled to all ~~of said plurality of~~ antennas and the second sub-switch is adapted to be coupled to all except one of the antennas.

10. (Currently Amended) The apparatus according to Claim 1, wherein said switch further comprises:

a fourth sub-switch adapted to couple a third selected antenna ~~be coupled to a power amplifier and to all of said plurality of antennas, said sub-switch adapted to couple said power~~

~~amplifier to a selected one of said plurality of antennas~~ to a third receiver chain.

11. (Currently Amended) A system comprising:
~~a plurality of N antennas~~[[;]] for connecting to at least ~~two~~ R receiver chains R being less than N; and

a switch adapted to couple each of said ~~at least two~~ receiver chains to a selected antenna ~~one of at least two of said plurality of antennas, said switch being further adapted to couple said receiver chains to said plurality of antennas such so~~ that each receiver chain is coupled to a different one of said plurality of antennas, said switch comprising:

a first at least two sub-switches, each sub-switch adapted to be coupled to (N-T) antennas T being less than R; which first sub-switch is adapted to couple a first antenna selected from the (N-T) antennas to (R-T) ~~coupled to a different one of said at least two receiver chains,~~

a second sub-switch adapted to be coupled to N antennas, and

a third sub-switch adapted to be coupled to the second sub-switch to couple T antennas selected from N antennas to at least T receiver chains.

12. (Currently Amended) The system according to Claim 11, further comprising:
a combiner adapted to receive signals from said ~~at least two~~ receiver chains and [[to]] combine said signals into a combined signal.

13. (Currently Amended) The system according to Claim 12, further comprising:
a demodulator/decoder adapted to receive said combined signal from said combiner and [[to]] perform at least one of demodulation and decoding of said combined signal.

14. (Currently Amended) The system according to Claim 11, wherein the ~~one of said plurality of antennas~~ to be coupled by said switch to each of said receiver chains ~~[[is]]~~ are to be selected according to a predetermined criterion.

15. (Currently Amended) The system according to Claim 11, wherein each sub-switch is adapted to be coupled to at least two ~~of said plurality of~~ antennas.

16. (Currently Amended) The system according to Claim 11, wherein the third sub-switch is further comprising:
~~—— a second switch adapted to be coupled to a power amplifier transmitter chain and to a receiver chain and to one of said sub-switches such that said second sub-switch sub-switches is coupled to~~ [[said]] a receiver chain [[and]] or said power amplifier transmitter chain through said third sub-switch second switch.

17. (Cancelled)

18. (Currently Amended) The system according to Claim 11, further comprising:
a second transceiver adapted to communicate with a first transceiver, said first transceiver comprising said ~~plurality of~~ antennas, said ~~at least two~~ receiver chains, and said switch, said second transceiver lacking antenna diversity, wherein said first transceiver is adapted to transmit a signal to said second transceiver at a data rate that compensates for the second transceiver's lack of antenna diversity.

19. (Currently Amended) A method, comprising:
determining ~~a subset~~ subsets of antennas out of a plurality of antennas;;
selecting an antenna in each subset using a predetermined criterion;; and
switching signals from [[said]] a first selected reception antenna subset of antennas to a ~~corresponding number of a first receiver chain with a first sub-switch chains;;~~
switching signals from a second selected reception antenna to a second receiver chain with a second sub-switch; and
switching signals from a selected transmission antenna to a transmitter chain with a third sub-

switch, each receiver chain receiving a different one of said signals from said ~~subset of best selected~~ antennas, wherein each receiver chain may only receive signals from a ~~predetermined~~ the determined subset of said plurality of antennas.

20. (Original) The method according to Claim 19, further comprising:
combining signals processed by said receiver chains according to a diversity combining technique.

21. (Original) The method according to Claim 19, wherein each receiver chain may receive signals from any one of said plurality of antennas.

22. (Original) The method according to Claim 19, wherein each receiver chain may receive signals from a subset of said plurality antennas consisting of all except one of said plurality of antennas.

23. (Currently Amended) The method according to Claim 19, further comprising:
switching a ~~power amplifier~~ transmitter chain to be connected to any one of said plurality of antennas.

24. (Currently Amended) The method according to Claim 23, further comprising:
adjusting a data rate of a signal transmitted by said ~~power amplifier~~ transmitter chain to compensate for a lack of diversity at a remote receiver.

25. (Currently Amended) A machine-readable medium that provides instructions, which when executed by a computing platform, cause said computing platform to perform operations comprising a method of:

determining a ~~subset~~ subsets of antennas out of a plurality of antennas;
selecting an antenna in each subset using a predetermined criterion; ~~and~~

switching signals from ~~[[said]]~~ a first selected reception antenna subset of antennas to a ~~corresponding number of a first~~ receiver chain with a first sub-switch chains;

switching signals from a second selected reception antenna to a second receiver chain with a second sub-switch; and

switching signals from a selected transmission antenna to a transmitter chain with a third sub-switch, each receiver chain receiving a different one of said signals from said ~~subset of best selected~~ antennas, wherein each receiver chain may only receive signals from a ~~predetermined~~ the determined subset of said plurality of antennas.

26. (Original) The machine-readable medium according to Claim 25, further comprising instructions, which when executed by a computing platform, cause said computing platform to perform operations further comprising:

combining signals processed by said receiver chains according to a diversity combining technique.

27. (Original) The machine-readable medium according to Claim 25, wherein each receiver chain may receive signals from any one of said plurality of antennas.

28. (Original) The machine-readable medium according to Claim 25, wherein each receiver chain may receive signals from a subset of said plurality antennas consisting of all except one of said plurality of antennas.

29. (Currently Amended) The machine-readable medium according to Claim 25, further comprising instructions, which when executed by a computing platform, cause said computing platform to perform operations further comprising:

switching a transmitter chain ~~transmit power amplifier~~ to be connected to any one of said plurality of antennas.

30. (Currently Amended) The machine-readable medium according to Claim 29, further comprising instructions, which when executed by a computing platform, cause said computing platform to perform operations further comprising:

adjusting a data rate of a signal transmitted using said ~~transmit power amplifier~~ transmitter chain to compensate for a lack of diversity at a remote receiver.

31. (Withdrawn) A method, comprising:

adjusting a data rate of a signal transmitted by a first transceiver employing diversity combining to compensate for a lack of use of diversity combining at a second transceiver.

32. (Withdrawn) The method according to Claim 31, wherein said adjusting comprises: determining a signal-to-noise ratio to support communication at a predetermined error rate;

and

using said signal-to-noise ratio to determine an appropriate transmit data rate.

33. (Withdrawn) A machine-readable medium that provides instructions, which when executed by a computing platform, cause said computing platform to perform operations comprising a method of:

adjusting a data rate of a signal transmitted by a first transceiver employing diversity combining to compensate for a lack of use of diversity combining at a second transceiver.

34. (Withdrawn) The machine-readable medium according to Claim 33, wherein said adjusting comprises:

determining a signal-to-noise ratio to support communication at a predetermined error rate;

and

using said signal-to-noise ratio to determine an appropriate transmit data rate.